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09/693,481	10/20/2000	Joel E. Short	NOMDX.039A	8652
20995 7590 11/23/2009 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				
EXAMINER				
WANG, LIANG CHE A				
ART UNIT		PAPER NUMBER		
2453				
NOTIFICATION DATE		DELIVERY MODE		
11/23/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary****Application No.**

09/693,481

**Applicant(s)**

SHORT ET AL.

**Examiner**

Liangche A. Wang

**Art Unit**

2453

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 6, 8-13 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 6, 8-13 and 28-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement (PTO/ISA/C3)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 7/31/08, 7/3/08

**DETAILED ACTION**

1. Claims 1, 3, 6, 8-13, 28-35 are presented for examination.
2. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 11/13/09 has been entered.

***Paper Submitted***

3. It is hereby acknowledged that the following papers have been received and placed of record in the file:
  - a. **Information Disclosure Statements** as received on 7/3/08, 7/31/08 are considered.

***Response to Arguments***

4. Applicant's arguments filed 11/13/09, have been fully considered but they are not persuasive.
5. In that remarks, applicant's argues in substance:
  - a. Applicant argues the prior art made of record do not teach or suggest, either alone or in combination, all of the limitations of the currently pending claims.In response to applicant's argument, the board affirmed the Examiner's decision on previous office action. Updated rejection is provided below.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claimed 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Referring to claim 33, referring to claim 33, claim 33 recited the limitation "a method for dynamic control of data transfer by a subscriber during an on-going network session with a network, where a subscriber's device is not configured to communicate with the network" and "...enable subscriber to access a network without re-configuration of a device of a subscriber, where the where a subscriber's device is not configured to communicate with the network" renders the claims vague and indefinite, the claimed limitation "allow the subscriber to transfer data within the network and also enable the

subscriber to access the network”, contradicts the limitation of “the subscriber's device is not configured to communicate with the network”

9. All dependent claims are rejected to as having the same deficiencies as the claims they depend from.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 28, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres, US Patent Number 6,738,371, hereinafter Ayres, in views of Sherman, US Patent Number 5,978,387, hereinafter Sherman.
12. Referring to claim 28, Ayres has taught a method for dynamic control of data transfer by a subscriber during an on-going network session (Col 3 lines 25-31), comprising:
- a. receiving a data packet at a gateway device (Col 5 lines 1-2, router 20 corresponds to the gateway device);
  - b. identifying, at the gateway device (router 20), a subscriber (end user 24) associated with the data packet (Col 5 lines 1-10);
  - c. retrieving from memory a subscriber profile (QOS customer profile 74) that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44);

- d. determining if a transfer rate for data packet transmission should be adjusted based on the subscriber-selected bandwidth (Col 8 lines 33-37, rate adjustment is made based on info stored in the profile);
- e. determining if the transfer rate for the data packet transmission should be adjusted based on a priority of the data packet (Col 1 line 67-Col 2 line 3, each user account indicates a respective level of service priority and packet throughput bandwidth, and Col 8 lines 33-37);
- f. adjusting the transfer rate for data packet transmission based on outcome of the determination process and without changing a communication path (Col 9 lines 10- 17, no communication path is changed);
- g. wherein the transfer rate for the data packet transmission may be adjusted at any time based on adjustment of the subscriber-selected bandwidth (abstract, lines 4-6, Col 3 lines 26-30, dynamically adjusting the rate of packets, Col 8 lines 33-37, 56-60, rate adjustment are made based on customer QOS profile).

Ayres does not explicitly teach adjustable by a subscriber at anytime during the ongoing session based on adjustment of the subscriber-selected bandwidth during the ongoing network session.

However, Sherman teaches wherein the transfer rate for data packet transmission is adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session (Col 1 lines 62-64, Col 2 lines 11-54, Col 7 lines 27-30.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the method for providing bandwidth that is dynamically adjustable to the end user's needs as taught by Sherman in Ayres such that to have Ayres' bandwidth to be adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session because both Ayres and Sherman teaches inventions relating to bandwidth allocation to end-users.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because Sherman provides a solution when end user cannot dynamically change the bandwidth in the connection to adjust carrying rates of data transmission (Col 1 lines 57-64), and this dynamic provisioning would ensure that the end user is charged to what is actually used (Col 1 lines 64-67.)

13. Referring to claim 33, Ayres has taught a method for dynamic control of data transfer by a subscriber during an on-going network session with a network (Col 3 lines 25-31), comprising:

- a. receiving a data packet at a gateway device (Col 5 lines 1-2, router 20 corresponds to the gateway device);
- b. identifying, at the gateway device (router 20), a subscriber (end user 24) associated with the data packet (Col 5 lines 1-10);
- c. performing a packet translation function to enable the subscriber to access any network without re-configuration of a host device of the subscriber (Col 4line 67-

- Col 5 line 10, data packet are transferred among Internet and users without the need of reconfiguration of router);
- d. retrieving from memory a subscriber profile (QOS customer profile 74) that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44);
  - e. determining if a transfer rate for data packet transmission should be adjusted based on the subscriber-selected bandwidth (Col 8 lines 33-37, rate adjustment is made based on info stored in the profile);
  - f. adjusting the transfer rate for data packet transmission based on outcome of the determination process and without changing a communication path (Col 9 lines 10- 17, no communication path is changed);
  - g. wherein the transfer rate for the data packet transmission may be adjusted at any time based on adjustment of the subscriber-selected bandwidth (abstract, lines 4-6, Col 3 lines 26-30, dynamically adjusting the rate of packets, Col 8 lines 33-37, 56-60, rate adjustment are made based on customer QOS profile).

Ayres does not explicitly teach adjustable by a subscriber at anytime during the ongoing session based on adjustment of the subscriber-selected bandwidth during the ongoing network session.

However, Sherman teaches wherein the transfer rate for data packet transmission is adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session (Col 1 lines 62-64, Col 2 lines 11-54, Col 7 lines 27-30.)



It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the method for providing bandwidth that is dynamically adjustable to the end user's needs as taught by Sherman in Ayres such that to have Ayres' bandwidth to be adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session because both Ayres and Sherman teaches inventions relating to bandwidth allocation to end-users.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because Sherman provides a solution when end user cannot dynamically change the bandwidth in the connection to adjust carrying rates of data transmission (Col 1 lines 57-64), and this dynamic provisioning would ensure that the end user is charged to what is actually used (Col 1 lines 64-67.)

14. Claims 1, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres, US Patent Number 6,738,371, hereinafter Ayres, in views of Sherman, US Patent Number 5,978,387, hereinafter Sherman, and in further views of Jones et al., us Patent Number 6,307,836, hereinafter Jones.
15. Referring to claim 1, Ayres has taught a method for dynamic control of data transfer by a subscriber during an on-going network session (Col 3 lines 25-31), comprising:
- a. receiving a data packet at a gateway device (Col 5 lines 1-2, router 20 corresponds to the gateway device);
  - b. identifying, at the gateway device (router 20), a subscriber (end user 24) associated with the data packet (Col 5 lines 1-10);

- c. retrieving from memory a subscriber profile (QOS customer profile 74) that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44);
- d. determining if a transfer rate for data packet transmission should be adjusted based on the subscriber-selected bandwidth (Col 8 lines 33-37, rate adjustment is made based on info stored in the profile);
- e. adjusting the transfer rate for data packet transmission based on outcome of the determination process and without changing a communication path (Col 9 lines 10- 17, no communication path is changed);
- f. wherein the transfer rate for the data packet transmission may be adjusted at any time based on adjustment of the subscriber-selected bandwidth (abstract, lines 4-6, Col 3 lines 26-30, dynamically adjusting the rate of packets, Col 8 lines 33-37, 56-60, rate adjustment are made based on customer QOS profile).

Ayres does not explicitly teach adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session.

However, Sherman teaches wherein the transfer rate for data packet transmission is adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session (Col 1 lines 62- 64, Col 2 lines 11-54, Col 7 lines 27-30.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the method for providing bandwidth that is dynamically adjustable to the end user's needs as taught by Sherman in Ayres such that

to have Ayres' bandwidth to be adjustable by a subscriber at anytime during the on-going session based on adjustment of the subscriber-selected bandwidth during the on-going network session because both Ayres and Sherman teaches inventions relating to bandwidth allocation to end-users.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because Sherman provides a solution when end user cannot dynamically change the bandwidth in the connection to adjust carrying rates of data transmission (Col 1 lines 57-64), and this dynamic provisioning would ensure that the end user is charged to what is actually used (Col 1 lines 64-67.)

Furthermore, Ayres does not teach a subscriber profile that includes a first subscriber-selected bandwidth for information being sent to network and a second subscriber -selected bandwidth for information being retrieved from a network, the first and second subscriber-selected bandwidth being separate.

Jones teaches a subscriber service profile, which includes list of what services can be granted, and the desired upstream and downstream bandwidth selected by the subscriber (Col 9 lines 47-56, Col 4 lines 46-53).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the subscriber-selected upstream and downstream rate to be stored in the subscriber profile of Ayres, because Ayres teaches a system which receives upstream data packets from a user and receives downstream data packets from the server (Col 5 lines 1-10) and Jones is providing an option for the subscriber to select the desired rate for the upstream and downstream data flow (Col 4 lines 46-53).

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the subscriber-selected upstream and downstream rate stored in subscriber's service profile would provide user's desired service rate as taught by Jones (Col 4 lines 46-53).

16. Referring to claim 35, Ayres as modified teaches an invention as described in claim 33, and Ayres does not teach a subscriber profile that includes a first subscriber-selected bandwidth for information being sent to network and a second subscriber -selected bandwidth for information being retrieved from a network, the first and second subscriber-selected bandwidth being separate. Jones teaches a subscriber service profile, which includes list of what services can be granted, and the desired upstream and downstream bandwidth selected by the subscriber (Col 9 lines 47-56, Col 4 lines 46-53).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the subscriber-selected upstream and downstream rate to be stored in the subscriber profile of Ayres, because Ayres teaches a system which receives upstream data packets from a user and receives downstream data packets from the server (Col 5 lines 1-10) and Jones is providing an option for the subscriber to select the desired rate for the upstream and downstream data flow (Col 4 lines 46-53).

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the subscriber-selected upstream and downstream rate stored in subscriber's service profile would provide user's desired service rate as taught by Jones (Col 4 lines 46-53).

17. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in views of Sherman and Jones and in further views of Gulliford et al., US Patent Number 6,618,355, hereinafter Gulliford.

Ayres as modified has taught an invention as described in claim 1, Ayres has taught the step of identifying, at the gateway device (router 20), a subscriber (end user 24) associated with the data packet (Col 5 lines 1-10);

Ayres does not explicitly teach the association of MAC address within the data packet.

However, Gulliford teaches a determination is made, when the switch receives a transmitted data packet, a physical address of a destination device (MAC address) is intended for a subscriber device (Col 12 lines 62-66.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the association of MAC address with the data packet of Gulliford in Ayres such that to have Ayres' system to identify at the gateway device the subscriber associated with the data packet by the MAC address within the data packet because both Ayres and Gulliford have taught packets communicating within a network.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the MAC address would allow Ayres' system to be aware of the physical address of a destination device as taught by Gulliford (Col 12 lines 32-66.)

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in view of Sherman and Jones and in further views of Salkewicz, US Patent Number 6,609,153, hereinafter Salkewicz.

Ayres as modified has taught an invention as described in claim 1, including retrieving a subscriber selected bandwidth (Col 8 lines 33-35, 38-44). Ayres has not taught where the information is retrieved from the Authentication, Authorization and Accounting (AAA) subscriber management interface.

However, Salkewicz has taught the use of AAA to retrieve access control and identify the subscribers (Col 15 lines 13-27.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Ayres such that to have information retrieved from an AAA subscriber management interface, because both Ayres and Salkewicz have taught packet communication with network devices.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having an AAA would allow a better security to be implemented in Fowler's system though the Authentication, Authorization and Accounting as taught by Salkewicz (Col 15 lines 13-27.)

19. Claim 8-11, 13, 29-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in view of Sherman and/or Jones and in further views of Fowler, US Patent Number 5,793,978, hereinafter Fowler.
20. Referring to claim 8, 29 and 34, Ayres as modified has taught an invention as described in claim 1, 28 and 33, and Ayres has taught the step of retrieving from memory a

subscriber profile (QOS customer profile 74) that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44) and the step of adjusting the transfer rate for data packet transmission based on outcome of the determination process (Col 9 lines 10-17); and Ayres has further taught the delay parameter (Col 6 lines 5-9).

Ayres as modified has not explicitly taught the limitation of delay period.

However, Fowler has taught the limitation of delay period (Fowler, Col 1 lines 49-52, delay period corresponds to the period of time that message is held until the selected amount of bandwidth become available.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the delay period of Fowler in Ayres such that to have the step of determining a delay period for transmitting the packet, and the step of queuing the data packet for the delay period before transmitting the packet because both Ayres and Fowler have taught data packets in a communication network.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the delay period for data packet transfer would give a relief to when a significant amount of packets are attempting to be broadcast or transmitted at the same time as taught by Fowler (Col 1 lines 28-40.)

21. Referring to claim 9, Ayres as modified has further taught wherein the step of determining a delay period further comprises determining a delay period based upon a byte size of the data packet (Fowler, Col 53-56, selected bandwidth is based on the packet bytes to be send in any one second period.)

22. Referring to claim 10, Ayres as modified has further taught wherein the step of determining a delay period further comprises determining a delay period based upon a byte size and a time lapse of a most recently transmitted data packet that was associated with the subscriber (Fowler, Col 1 lines 53-56, selected bandwidth is based on the packet bytes to be send in any one second period.)
23. Referring to claim 11, Ayres has taught about the delay period (Col 1 lines 48-52.) And it would have been obvious for a person with ordinary skill in the art to have the maximum delay period of 2 seconds, because a delay time could be set to a limit of any time interval including a maximum of 2 seconds.
24. Referring to claim 13, Ayres as modified has taught wherein the subscriber network session is a wireless network session (Fowler, Col 2 lines 63-67, broadcasting is known to be done either wirely or wirelessly.)
25. Referring to claim 30, Ayres as modified has taught the method of claim 29, the priority of the data packet is based on a content of the information in the data packet (Col 1 line 67 -Col 2 line 3).
26. Referring to claim 31, Ayres as modified has taught the method of claim 29, the priority of the data packet is based on a subscriber selected class of service (Col 3 lines 53-65, Col 10 lines 65-67).
27. Referring to claim 32, Ayres as modified has taught the method of claim 29, the priority of the data packet is based on a subscriber selected reservation of a bandwidth block (Col 3 lines 53-65, Col 10 lines 65-67).



28. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in views of Sherman and Fowler and in further views of Barton, US Patent Number 6,310,886, hereinafter Barton. Ayres as modified has not taught, the step of queuing the data packet using a ring buffer. However, Barton has taught the use of ring buffer for queuing the data packet (Col 8 lines 1-3).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Ayres as modified such that to have a ring buffer for queuing the data packet, because both Ayres as modified and Barton has taught packet communication in a network environment.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the ring buffer algorithm used for queuing packets to be sent through is well known and recognized by the practitioners skilled in the art as taught by Barton (Col 7 line 67- Col 8 line 3.)

### ***Conclusion***

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liangche A. Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571)272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Liang-che Alex Wang  
November 17, 2009

/Liangche A. Wang/  
Primary Examiner, Art Unit 2453